

**AB 599 Public Advisory Committee**

**Cal/EPA Building**  
Sacramento, California

*Meeting Summary*

Monday, October 28, 2002

**Convene Meeting**

The meeting began at 9:30 a.m. Members of the PAC, staff and the public introduced themselves.

**Review Agenda and Approve August 28, 2002 Meeting Summaries**

Steve Ekstrom, PAC facilitator, described the agenda for the day. The meeting summary for August 28, 2002 was approved as mailed.

**Comprehensive Monitoring Program – Groundwater Basin Prioritization**

James Giannopoulos reviewed the matrix of alternative monitoring programs, setting the context for Ken Belitz, of USGS, who then presented a rationale for and description of USGS' recommended approach to prioritizing the 400+ groundwater basins in California. Ken discussed factors that need to be considered (e.g., area, agricultural pumping, population, number of DHS wells, number of leaking underground fuel tanks, and pesticide application). He also described the nine hydrogeologic provinces in California. The number of DHS wells is the primary factor in prioritizing basins, with secondary factors being groundwater use, agricultural pumping, leaking underground fuel tanks (LUFTs), and pesticide sections. Based on the above, Ken broke the priority basins into four categories. A fifth category referred to DHS wells outside of defined groundwater basins (i.e. hard rock), and a sixth referred to the remaining non-priority basins. These categories were also represented on the matrix that James described earlier. Ken then handed out a spreadsheet that ranked basins based on his recommended prioritization approach.

Products from prioritized basin studies would include 1) basin-scale data (randomized, spatially distributed sampling; low level detection limit VOC analyses; environmental tracers Tritium/Helium Groundwater Age-Dating); 2) state-scale data (consistency of environmental data collected at basin scale); and 3) QA/QC data.

PAC member comments/questions included:

- Excellent presentation!
- \$83 million seems low for Alternative Z (of the matrix) which includes Categories 5 and 6; this alternative assumes drilling 400 new wells.
- Does the recommendation assume that all DHS wells are functional? Response: USGS would validate wells before using them; it's possible some non-DHS wells might be needed.

- In the report to the legislature, staff should report any limitations of the approach that's adopted.
- The missing piece is source water assessment; did USGS consider recharge waters? Response: the emphasis is on drinking water, per AB 599.
- This is really taking the GAMA approach and extending it to DHS wells.
- We need to discuss how we'll factor in local/regional aspects.
- Is there a temporal component?
- What does random well selection add? Response: ability to fairly compare basins over time; once wells are selected you need to keep using them.
- Some monitoring should be outside the randomly selected wells. Response: you could add 5 to 10 wells/basin for hypothesis testing.

## Public Comment

Members of the public were asked if they had any comments. Comments included:

- This was an excellent presentation; what's missing is interagency coordination (all the pieces are there, but coordination hasn't happened yet).

## Monitoring Program Constituents (Contaminants) of Concern

Neil Dubrovsky presented USGS' recommended approach for identifying constituents of concern. The primary source document USGS considered was the ITFM, 1997 Selection Paradigm. They also considered the National Research Council, 2001 Classifying Drinking Water Contaminants of Regulatory Consideration, and the USGS National Water Quality Assessment (NAWQA).

The key question is what to look for. Neil described categories of constituents and levels of intensity: 1) protection of beneficial uses, including use as drinking water or for irrigation; 2) age-dating and low-level VOC analyses (for interpretation of groundwater flow); and 3) emerging contaminants (currently unregulated, but there are potential concerns).

Regarding intensity, Neil described 3 levels: 1) low intensity (DHS list that protects beneficial use); 2) moderate intensity (adds low-level VOCs and age-dating to level 1); and 3) high intensity (adds NAWQA schedule of emerging contaminants to levels 1 and 2).

PAC member questions/comments included:

- Regarding the GAMA analytical suite, would you select it? Is GAMA testing well suited? Response: yes
- If you see a constituent does it mean you always have a problem? Response: no, not always.
- Could constituents drop out of a program? Response: yes, if there's been no change in concentrations and if limits are not exceeded.
- What's the sampling frequency? Response: USGS proposes once every three years for key wells.

## **Break-out Session to discuss USGS prioritizing recommendation**

PAC members broke into three small groups to discuss and report back on three questions: 1) what are the strengths of the USGS proposal? 2) What are the limitations, or areas of concern? And 3) what policy questions are raised?

The following were reported back to the full group:

### Strengths

- The proposal was nicely structured and well thought out
- It's defensible
- It's comprehensive and consistent
- Liked the prioritization criteria
- Great presentation; this "advances the cause"
- \$50 million is very little for what it would accomplish

### Limitations/concerns

- There's a need for maintaining statistical validity in well selection
- We understand how costs are calculated; it would be good to explain contingencies in the legislative report; it might be good to use a range rather than a definitive number
- We need to make sure the databases of various state agencies are integrated; how do we get there?
- Is the study approach reproducible?
- The program needs to be flexible, in order to incorporate rapidly changing trends and events
- The program is oriented towards good production wells
- There may be low detection limit issues
- What's the value of a 10 year time frame?

### Policy questions

- How will the information be related to the public?
- Regarding alternatives J through N, perhaps they can be phased in, e.g., do J in years 1 and 2, K in year 3 and 4, etc.
- Perhaps we could have a grant program for local agencies
- The report to the legislature should discuss outreach

Other PAC comments included:

- What would change in the biennial reports, particularly if there is a ten year time frame for basin assessment?

- DHS, DTSC, DPR and water well analytical data reports should be standardized to SWRCB's Electronic Deliverable Format (EDF).
- Should we mandate Geotracker and EDF? What would the cost be?

## **Public Comment**

Members of the public were asked if they had any comments. Comments included:

- Make sure environmental justice is factored into basin prioritizing.
- Why not look at flow paths instead of randomly selecting 1 well for every 25 square miles?
- It's important to note how things could change between dry and wet years.
- Use local water agency data.
- How will data be standardized?
- Regarding cost/benefit, consider concentrating on "low hanging fruit" first.
- Databases will need to communicate electronically; what's the conversion cost?

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## **Interface with Local Water Agencies**

Bruce Mowry presented the monitoring program of the Water Replenishment District of Southern California. This district includes 420 square miles, 43 cities and has a population of about 4 million. The program consists of well construction, determination of water quality and quantity, a report on the health of the basin, and use of data for basin management. WRD uses nested wells in order to sample water from various aquifers. The cost of these wells (construction, continuous core holes, data logging equipment) runs about \$315,000/well. WRD is self-funded, and it's possible that other category 1 basins could self-fund as well.

Bruce made the point that he wants his data to be compatible with Geotracker (WRD uses MS Access currently). He felt that the highest priority of the AB 599 monitoring program should be to make data compatible.

John Rossi, PAC member and Chino Basin Watermaster gave a presentation on the Chino Basin monitoring program. This basin has a population of about 700,000. On the self-funding question, John felt that denser populations, as exists in Chino Basin, can leverage local funds with minimal impact.

PAC member comments included:

- It's probably not reasonable to expect smaller local water agencies to self-fund.
- Self-funding shouldn't be ruled out; some might need a "kick start" with public funds.
- Both presentations show local people coming together to solve problems
- Regarding data, the AB 599 report could mandate data conformity; or we could look for ways to provide incentives for local agencies to convert their data systems.

- Small local agencies concentrate on water delivery; they need incentives to participate in good monitoring.

On the question of data compatibility, Mike Legg from Arsenault-Legg (Geotracker contractor) stated that programs like MS Access can communicate with Geotracker. All that's needed is a good data dictionary, then it's easy to import into Geotracker, and out from Geotracker to other databases. A conversion program is easy to produce and use.

## **PAC Discussion Regarding Basin Prioritizing, Matrix of Alternatives, Etc.**

As the PAC was contemplating the work that remains, Vice Chair David Beckman noted while the PAC and ITF have made a lot of progress since the August meeting, more time is needed for the PAC to deliberate and provide helpful input to the report to the Legislature. He suggested that the PAC seek a 60-day extension on the submittal of the legislative report. After discussion, it was agreed by consensus that the Chair and Vice Chair would write a letter to Assemblymember Liu requesting a 60-day deadline extension.

Next, the PAC was asked to comment on two questions: 1) what do you need from staff for the December PAC meeting? and 2) what recommendations do you want to make at this point for the Report to the Legislature? After an itemized list was created, the PAC examined each item and determined whether consensus existed. Consensus was reached on the following (designated with an asterisk \*):

### **Data Management:**

- A) *Geotracker has been recommended by PAC\**
- B) *All State Agencies shall adopt EDF format for electronically reporting groundwater data – to be compatible with Geotracker\**
- C) *The ITF will develop minimum set of groundwater quality data elements (locals to state)\**
- D) *Incentives to local agencies to utilize a compatible Geotracker data format\**
- E) *The state will provide local agencies with electronic groundwater quality database template for use to compile local data in a format compatible with Geotracker\**
- F) *Develop the basis for a Grant & training program\* (AB 303)*
- G) *Locals and state agencies should report in a consistent format in order to increase communication\**
- H) *Data exchange tools be developed\**
- I) *ITF prepare a specific plan that establishes a baseline to the comprehensive program - Implementation Action Plan (deals with Items B-H above)*
- J) *Groundwater data means: well logs, quality data, water levels, etc*

### **Proposed Well Monitoring – USGS**

- *Does proposed mon. program show too rosy of a picture? Include limitations?*
- *Adopt basin prioritization proposed by USGS\**
- *ITF Recommend rating system using local land use and hydro data v. random?*
- *Sampling methods between basins be consistent\**
- *Low detection limit for key wells only. Not every well\**

- *Develop a protocol for replacement well id\**
- *Repeat Sampling frequency be appropriate for the potential threat to groundwater resource (i.e. MTBE)?\**
- *ITF respond to the statewide vs. local issues?*
- *Whatever protocol is used, some flexibility of program is necessary\**
- *Alternatives under PAC consideration: Phased Approach*
- *Level J initially over a 3 yr period*
- *Level N over 15 yrs*
- *Level Z over 20 years*
- *Request to ITF interface existing info and how it relates to monitoring compilation and analyses of existing, new testing, and local agency data.*
- *Objectives – Key data wells; basin to basin comparison; contaminants*

## ***Basin Assessment***

- *Does GAMA assessment in LA an accomplishment for AB 599? Yes. Existing GAMA and local agency data/assessment should be honored and incorporated\**
- *Include local agency issues (monitoring and assessment) in the Report to the Legislature\**
- *DWR/SWRCB prepare Biennial Report (CA Groundwater Report)\**
- *Include Report as part of Public Outreach (put into Public Outreach section of Report to Legislature)\**
- *ITF recommendations on frequency of basin Reports with notion we not wait 10 yrs (timely manner)\**

The PAC also considered the matrix of alternatives to see if they could reach consensus on a particular alternative. After much discussion it was agreed that consensus was not achievable at this time. Most members wanted alternative N (USGS categories 1 through 5) or beyond, but a few felt it was wiser to start with alternative J (USGS category 1), do it well and build on its success. Another possibility was a phased-in approach. The PAC asked the ITF to develop a proposal for phasing in basin monitoring for the December meeting. The ITF was also asked to develop a work plan.

Other PAC comments included:

- *Is there a feedback loop that will inform later alternatives and years? (The ITF was asked to describe the interface between existing information and how that relates to additional testing.)*
- *What might we learn from new data sources?*
- *What level of evaluation and assessment do we really want?*

Neil Dubrovsky then demonstrated, using a PowerPoint presentation, how much material (database issues, study design, policy and cost, implementation) had been addressed in these two days by the PAC. He went on to stress for statistical validity and a consistent approach across basins, and maximizing the use of existing wells. Overall the program should concentrate on clean water and existing data. A PAC member commented that Neil's brief presentation might represent the beginning of a work plan.

The PAC also endorsed by consensus the expansion and continuation of the GRIST committee.

There was some discussion about funding the AB 599 monitoring program. It was agreed that members would think about ongoing funding sources and submit any ideas to staff prior to the December meeting.

## **Public Comment**

Members of the public were asked for their comments. None chose to address the PAC at this time.

## **Next PAC meeting**

The next meeting will be on Wednesday, December 18.

## **Adjournment**

The meeting was adjourned at 3:55 p.m.

Follow-up List to Do's:

- Updated PPTs from Mowry and Rossi sent to PAC?
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